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VANM274.001APC

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Dubois et al.
Appl. No. : 10/567,197
Filed : September 21, 2006
For : POLYMER-BASED
COMPOSITES COMPRISING
CARBON NANOTUBES AS A
FILLER, METHOD FOR
PRODUCING SAID
COMPOSITES, AND
ASSOCIATES USES
Examiner : Unknown
Group Art Unit: 1754

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July 11, 2007

(Date)

Marina L. Gordey, Reg. No. 52,930

REQUEST FOR CORRECTED FILING RECEIPT

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Customer Service Center
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Dear Sir:

Applicant hereby requests that the Official Filing Receipt, a copy of which is enclosed, be corrected to reflect the following: in the title, please add a comma after the word FILLER. For your convenience, a copy of the first page of the specification and cover page of the PCT publication is enclosed.

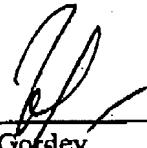
Appl. No. : 10/567,197
Filed : September 21, 2006

We look forward to receiving the corrected filing receipt in due course.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: July 11, 2007

By: 

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CONFIRMATION NO. 9583

20995
KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
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IRVINE, CA 92614

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Assignment For Published Patent Application

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Power of Attorney: The patent practitioners associated with Customer Number 20995.

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/BE04/00113 08/05/2004
which claims benefit of 60/492,613 08/05/2003

Foreign Applications

EUROPEAN PATENT OFFICE (EPO) 04447025.0 02/04/2004

If Required, Foreign Filing License Granted: 04/28/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/567,197**

Projected Publication Date: 08/09/2007

Non-Publication Request: No

Early Publication Request: No

Title

Polymer-based composites comprising carbon nanotubes as a filler, method for producing said composites, and associated uses

Preliminary Class

502

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VANM274.001APC

PATENT

POLYMER-BASED COMPOSITES COMPRISING CARBON NANOTUBES AS A FILLER, METHOD FOR PRODUCING SAID COMPOSITES, AND ASSOCIATED USES

Field of the Invention

[0001] The present invention relates to the field of materials and more particularly to the field of the composite materials defined below as microcomposites and nanocomposites.

[0002] The present invention relates especially to a process for obtaining a composite material comprising a matrix of at least one polymer in which are dispersed carbon nanotubes serving as filler. The present invention also relates to said composites thus obtained and to uses thereof in the field of nanotechnology.

Prior art

[0003] Polymer materials were developed at the start of the 20th-century and they currently occupy an increasingly important place in our daily life.

[0004] For that very reason, industrial pressure is currently such that it demands increasing specialization of applications, and it is thus necessary to propose more and more efficient materials to satisfy this need.

[0005] In the case of polymer materials, this demand implies the provision of solutions to overcome the inherent weaknesses of these materials, which are especially their relative lack of mechanical strength and their flammable nature.

[0006] It has thus been proposed to combine these polymer materials with other components known as "fillers" in order

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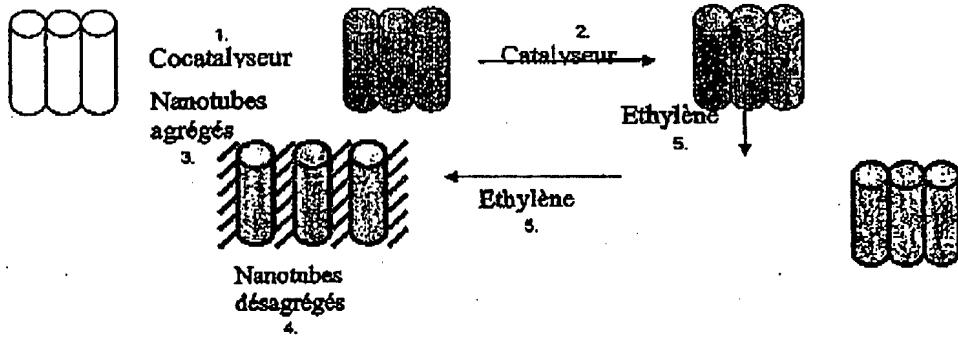
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sels (BE).(81) États désignés (sauf indication contraire, pour tous titres de
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GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KB, KG,*[Suite sur la page suivante]*(54) Titre: POLYMER-BASED COMPOSITES COMPRISING CARBON NANOTUBES AS A FILLER, MÉTHODE POUR PRO-
DUCING SAID COMPOSITES, AND ASSOCIATED USES(54) Titre : COMPOSITES A BASE DE POLYMER COMPRENANT COMME CHARGE DES NANOTUBES DE CARBONE:
PROCEDE D'OBTENTION ET UTILISATIONS ASSOCIES

1. CO-CATALYST
2. CATALYST
3. AGGREGATED NANOTUBES
4. DISAGGREGATED NANOTUBES
5. ETHYLENE

(57) Abstract: The invention relates to a method for producing carbon nanotubes in a dispersed state, said method being characterised in that it comprises a stage whereby polymerisation is carried out from at least one so-called monomer of interest, in the presence of a catalytic system, said catalytic system comprising a co-catalyst/catalyst catalytic couple that is supported by a catalyst carrier, said catalyst carrier corresponding to said carbon nanotubes. The invention also relates to composite materials obtained by said method, and to a catalytic system for implementing said method. The invention further relates to the use of the inventive method and products in the field of polymers, especially that of nanotechnologies.

[Suite sur la page suivante]

WO 2005/012170 A1